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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,089	12/29/2000	David J. Evans	NC30310	4021
32294	7590	11/19/2004	EXAMINER	
SQUIRE, SANDERS & DEMPSEY L.L.P.			PHUNKULH, BOB A	
14TH FLOOR			ART UNIT	
8000 TOWERS CRESCENT			PAPER NUMBER	
TYSONS CORNER, VA 22182			2661	

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/752,089

Applicant(s)



EVANS, DAVID J.

Examiner

Bob A. Phunkulh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This communication is in response to applicant's 07/14/2004 amendment(s)/response(s) in the application of **EVANS** for "**SYSTEM AND METHOD FOR DISTRIBUTION OF A DATA STREAM FROM HIGH-TO-LOW-TO-HIGH BANDWIDTH LINKS**" filed 12/29/2000. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-4 are now pending.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by **CAM et al.** (US 5,875,192), hereinafter **CAM**.

Regarding claim 1, **CAM** discloses a system for detection of error conditions when passing a cell stream at a particular transmission rate from a first location to a second location over multiple links, the system comprising:

a first unit at the first location coupled to one end of each of a plurality of low capacity data links for receiving the cell stream and inverse multiplexing the cell stream into frames that are transmitted over at least two data links trained to operate at optimal rates and selected from the plurality of low capacity data links that are set to active

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status (*first IMA assembly having an input coupled to an incoming cell stream from a first ATM layer device, see col. 2 lines 63 to col. 3 line 4*); and

a second unit at the second location coupled to the other end of each of the plurality of low capacity data links for receiving the frames from each of the active trained data links and multiplexing the frame to produce the cell stream, wherein the first unit inserts at least one detection cell containing a predetermined pattern that is known by both the first unit and the second unit into each frame prior to transmission and the second unit analyzes the received detection cell to determine if an error condition exists (*second IMA assembly having an output coupled to a second ATM layer device, a plurality of links coupling the first IMA assembly to the second IAM assembly, see col. 3 lines 1-24; and col. 7 lines 7-16; and figure 2*).

Regarding claim 4, **CAM** discloses a method for enhancing error detection in a data stream transmitted from a first unit to a second unit, the method comprising:

establishing a desired cell size for a detection cell and a frequency of insertion into the data stream (**col. 3 lines 3-8**);

determining a known signal that will be part of the detection cell;

inserting the detection cell with the known signal into the data stream being transmitted from the first unit to the second unit (**col. 3 lines 8-11**); and

analyzing the received detection cell at the second unit to determine if an error condition exists (**see col. 3 lines 16-24**).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **CAM** in view of **SATHE et al.** (US 5617417), hereinafter **SATHE**.

Regarding claim 2, **CAM** fails to explicitly disclose at least one data link selected from the plurality of low capacity data links that is trained and set to idle status, wherein the first unit and the second unit switch to use the trained idle data link to replace any one of the active trained data links that has failed and wherein the status of the idle data link is changed to active, thereby avoiding system down time due to line failure.

**SATHE**, on the other hand, teaches at least one data link selected from the plurality of low capacity data links that is trained and set to idle status, wherein the first unit and the second unit switch to use the trained idle data link to replace any one of the active trained data links that has failed and wherein the status of the idle data link is changed to active, thereby avoiding system down time due to line failure (see col. 8 lines 8-24).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to includes the teaching of **SATHE** in the system taught by **CAM** for providing fault tolerance communication links.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **CAM** in view of **COUNTERMAN** (US 6,222,858).

**CAM** fails to explicitly disclose the trained data links operate at an optimal rate.

**COUNTERMAN**, on the other hand, teaches it is well known in the art (see col. 4 lines 16-33).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to implement the teaching of **COUNTERMAN** in the system taught by **CAM** in order to comply with the known and widely accepted rate of communication.

### ***Response to Arguments***

Applicant's arguments filed 7/14/2004 have been fully considered but they are not persuasive.

In response to the applicant argument in the remark **CAM** discloses the following:

Once (errored) framing cells have been identified, the location information contained in these cells may be used to identify cells received further back into the past. This is because the payloads of these cells may be error-free even though their headers are in error. In order to distinguish between errors in the header and the payload, one calculates the CRC-10 over octets 7 through 51 of a S (framing) cell. Alternatively, one can specify a separate coding scheme altogether for error detection and even error correction of the location information.

Therefore, **CAM** discloses determining a known signal that will be part of the detection cell.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

**Any response to this action should be mailed to:**

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

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The following address mail to be delivered by other delivery services (Federal Express (Fed Ex), UPS, DHL, Laser, Action, Purolater, Hand Delivery, etc.) as follow:

U.S. Patent and Trademark Office  
220 20<sup>th</sup> Street South  
Customer Window, Mail Stop \_\_\_\_\_  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor **Kenneth Vanderpuye**, can be reach on **(571) 272-3078**. The fax phone number for this group is **(703) 872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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**Bob A. Phunkulh**

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TC 2600

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November 12, 2004

**BOB PHUNKULH  
PRIMARY EXAMINER**